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## **APPLICATION FOR UNITED STATES PATENT**

Title:           **METHOD OF WINDING  
SHEETING WITH FILLER STRIPS**

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## **SPECIFICATION**

## **METHOD OF WINDING SHEETING WITH FILLER STRIPS**

### **Background**

Single-ply membrane roofing incorporates a single-ply polymeric membrane such as EPDM as a water barrier for a roof surface.

5 This can also be used as pond liners as well as other applications. As it is impractical to manufacture polymeric sheeting which can completely cover most roofs, individual sheets are adhered together along lap seams to form a continuous water impervious sheet.

10 In the past the lap seams have been completely formed at the construction site. This requires that, when necessary, the overlapping edges be cleaned, a primer applied and then an adhesive. Adhesive seam tape is frequently used to form a lap seam. There are a variety of different roofing seam tapes that can be applied. These are generally very tacky. Upon contact they adhere to the overlapped edges of  
15 sheeting forming a lap seam.

In order to reduce on-site labor, it is desirable to have the seam tape preapplied to the roofing membrane. Unfortunately, when one preapplies seam tape to the edge of a membrane, it interferes with storing and shipping the sheeting. Typically the sheeting is rolled onto a cylindrical core. Because typical sheeting has uniform thickness, one can roll an indefinite length of material on the core. However, when a seam tape is applied to the edge of the sheeting, the sheeting cannot be simply rolled. The seam edge is twice as thick as the remaining portion of the sheet. Rolling this would form a conical-shaped roll. This interferes with shipping.

#### **Summary of the Invention**

The present invention is premised on the realization that sheeting having preapplied seam tape along one edge can be rolled to form a cylinder having a generally uniform cross-section. More particularly the present invention is premised on the realization that such a roll can be formed by inserting flexible filler strips along the field of the membrane sheeting prior to rolling the sheeting. Thus as the sheeting is rolled, the filler strips will maintain a uniform diameter for the roll across the entire roll.

The objects and advantages of the present invention will be further appreciated in light of the following detailed description and drawing in which:

**Brief Description of the Drawing**

The Figure is a diagrammatic depiction of the present invention.

**Detailed Description**

5                   As shown in the Figure, the present invention is roof  
sheeting 12 which incorporates a field portion 13, a seam edge portion 14  
and a second edge portion 16. Edge portion 14 includes a layer of seam  
tape 15 applied along the edge. The sheeting can be any sheeting  
typically used for roofing and pond liners, and the like, such as EPDM,  
10 thermoplastic elastomer, or PVC. EPDM is preferred. Generally this will  
have a thickness of 30 to 100 mil, typically 45 to 60 mil. The seam tape  
will have a thickness of approximately 35 to 40 mil.

                  The seam tape may be any type of seam tape used in the  
roofing industry. It may be thermoplastic or thermosetting. Preferably, it  
15 is a pressure sensitive tape. There are several commercially available  
seam tapes available for use in the roofing industry. Although the width  
of the seam tape can vary depending on type and application  
requirements, it will generally be at least about 3 inches wide.

                  The method of applying the seam tape 15 to the membrane  
20 sheeting 12 of the present invention does not form part of the present  
invention. The seam tape is generally applied in the factory by first  
applying a primer layer along a clean edge 14 of the membrane.

Subsequently, the seam tape 15 is pressed against the membrane along the edge 14. The exposed surface of the seam tape is generally covered with a protective release sheeting (not shown).

Alternatively, a double wide tape (i.e., 6-7 inches wide) can  
5 be applied along the center line of the sheeting. The sheeting can then be cut along the center of the seam tape to form two sheets of equal width. Again, the method of forming the sheeting with the applied seam tape forms no part of the present invention.

To form a roll of the sheeting, at least one filler strip 18  
10 generally 6" wide is placed on the field portion 13 or opposite edge of sheet 12 which is rolled out on the floor. Preferably, a plurality of filler strips are placed on the sheet parallel to seam tape 15. For a ten foot wide sheet, five evenly spaced strips are adequate. The filler strips 18 are preferably cardboard strips having a thickness about equal to the  
15 thickness of the seam tape including the release sheeting.

The sheeting 12 with the filler strips 18 and seam tape 15  
is then rolled up to form a roll 22 of membrane sheeting having a uniform diameter across the width of the roll. The roll can be formed manually or can be formed using any standard rolling equipment. Preferably, the  
20 roll 22 will be wound around a central cardboard roll 24, as shown. This rolling method permits the application of the seam tape at the factory,

reducing on site labor. This provides a value added product. Further, the roll has a uniform cross section which facilitates shipping.

When this is used at a roof site, the roll is simply unrolled and the filler strips 18 are discarded. The seam tape 15 can then be  
5 used to form a lap seam with an adjoining membrane sheet.

Although the present invention has been described for roofing application, it can be used to form any waterproof barrier including, for example, pond liners.

This has been a description of the present invention along  
10 with the preferred method of practicing the present invention. The invention itself should only be defined by the appended claims whereby we claim: